

ABSTRACT

The present invention relates to transgenic animals, as well as compositions and methods relating to the characterization of gene function. Specifically, the present invention provides transgenic mice comprising mutations in a ubiquitin-specific protease gene. Such transgenic mice are useful as models for disease and for identifying agents that modulate gene expression and gene function, and as potential treatments for various disease states and disease conditions.

1. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene.

2. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion.

3. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a substitution.

4. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid.

5. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a substitution of at least one amino acid.

6. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid.

7. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid.

8. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid.

9. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid.

10. A transgenic animal comprising a mutation in a ubiquitin-specific protease gene, wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid, and wherein the mutation is a deletion of at least one amino acid, and wherein the mutation is a substitution of at least one amino acid.